IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A collimating device for controlling a radiation field of an X-ray radiated from an X-ray radiator, the device comprising:

a first plurality of collimating leaves;

a second plurality of collimating leaves opposing the first plurality of collimating leaves;

a laser beam generator configured to generate a laser beam which emanates between the first and second plurality of collimating leaves, the laser beam having an axis perpendicular to an axis of the radiated X-ray between the first and second plurality of collimating leaves;

a detector configured to detect the laser beam;

a memory configured to store position information of each leaf of the first and second plurality of collimating leaves when said each leaf is determined to intersect the laser beam based on the detection; and

a controller configured to position said each leaf based on the position information to control the radiation field.

Claim 2 (Currently Amended): The device according to claim 1, further comprising:

a reflector configured to reflect the laser beam generated by the laser beam generator so that the reflected laser beam emanates between the first and second plurality of collimating leaves.

Claim 3 (Currently Amended): The device according to claim 1, further comprising:

a reflector configured to reflect the laser beam emanated between the first and second plurality of collimating leaves so that the reflected laser beam is detected by the detector.

Claim 4 (Currently Amended): The device according to claim 1, wherein

the memory stores the position information when the detector detects a predetermined percentage of the laser beam.

Claim 5 (Original): The device according to claim 1, further comprising:

a compensation unit configured to compensate the position information, wherein the controller positions said each leaf based on the compensated position information.

Claim 6 (Currently Amended): The device according to claim 5, wherein

the compensation unit compensates the position information in accordance with an incident angle of the laser beam between the first and second plurality of collimating leaves.

Claim 7 (Original): The device according to claim 5, wherein

the memory is further configured to store the compensated position information.

Claim 8 (Original): The device according to claim 1, further comprising:

a second memory configured to store compensation distance information for compensating the position information, wherein the compensation distance information is based on a distance caused by a gear engagement in a gear rotation when said each leaf is driven by a gear.

Claim 9 (Original): The device according to claim 8, wherein

the second memory stores first distance information and second distance information as the compensation distance information;

the first distance information is used when said each leaf is driven to move by a first predetermined distance in a first direction; and

the second distance information is used when said each leaf is driven to move by a second predetermined distance in a second direction.

Claim 10 (Currently Amended): A collimating device for controlling a radiation field of an X-ray radiated from an X-ray radiator, the device comprising:

a first plurality of collimating leaves;

a second plurality of collimating leaves opposing the first plurality of collimating leaves;

a laser beam generator configured to generate at least first and second laser beams, wherein the first laser beam extends along a first axis to intersect ~~intersects~~ the first plurality of collimating leaves and the second laser beam extends along a second axis to intersect ~~intersects~~ the second plurality of collimating leaves, wherein the first and second axis are perpendicular to an axis of the radiated X-ray;

a detector configured to detect the first and second laser beams;

a memory configured to store first position information of each leaf of said first plurality of collimating leaves when each leaf of said first plurality of collimating leaves is determined to intersect the first laser beam based on the detection;

said memory further configured to store second position information of each leaf of said second plurality of collimating leaves when each leaf of said second plurality of collimating leaves is determined to intersect the second laser beam based on the detection; and

a controller configured to position said each leaf of said first plurality of collimating leaves based on the first position information and the each leaf of said second plurality of collimating leaves based on the second position information so as to control the radiation field.

Claim 11 (Currently Amended): The device according to claim 10, wherein

the laser beam generator generates a third laser beam which emanates between the first and second plurality of collimating leaves ~~and intersects an axis of the X-ray~~, the third laser beam having an axis perpendicular to an axis of the radiated X-ray between the first and second plurality of collimating leaves;

the detector is further configured to detect the third laser beam;

the memory is further configured to store third position information of each leaf of the first and second plurality of collimating leaves when said each leaf is determined to intersect the third laser beam based on the detection; and

the controller is configured to position said each leaf based on the third position information in addition to the first and second position information.

Claim 12 (Currently Amended): The device according to claim 10, wherein

the laser beam generator generates third and fourth laser beams which emanate between the first plurality of collimating leaves and the second plurality of collimating leaves, the third laser beam extends along a third axis to intersect ~~intersecting~~ the first plurality of collimating leaves and the fourth laser beam extends along a first axis to intersect ~~intersecting~~ the second plurality of collimating leaves, wherein the third and fourth axis are perpendicular to an axis of the radiated X-ray;

the detector is further configured to detect the third and fourth laser beams;

the memory is further configured to store the first position information when said each leaf of the first plurality of collimating leaves is positioned furthest from the second plurality of collimating leaves and determined to intersect the first laser beam with one side far from the second plurality of collimating leaves based on the detection;

said memory further configured to store the second position information when said each leaf of the second plurality of collimating leaves is positioned furthest from the first plurality of collimating leaves and determined to intersect the second laser beam with one side furthest from the first plurality of collimating leaves based on the detection;

said memory further configured to store third position information when said each leaf of said first plurality of collimating leaves is positioned closest to the second plurality of collimating leaves and determined to intersect the third laser beam with another side closest to the second plurality of collimating leaves based on the detection;

said memory further configured to store fourth position information when said each leaf of said second plurality of collimating leaves is positioned closest to the first plurality of collimating leaves and determined to intersect the fourth laser beam with another side closest to the first collimating leaves based on the detection; and

the controller is configured to position said each leaf of said first plurality of collimating leaves based on the first and third position information and the said each leaf of said second plurality of collimating leaves based on the second and fourth position information.

Claim 13 (Currently Amended): The device according to claim 10, wherein

the laser beam generator generates a first group of laser beams including the first laser beam and a second group of laser beams including the second laser beam as the plurality of laser beams, the first group of laser beams extends along a third axis to intersect ~~intersecting~~

the first plurality of collimating leaves and the second group of laser beams extends along a fourth axis to intersect ~~intersecting~~ the second plurality of collimating leaves, wherein the third and fourth axis are perpendicular to an axis of the radiated X-ray;

the detector is further configured to detect the first and second groups of laser beams;

the memory configured to store first information of positions of each leaf of said first plurality of collimating leaves where said each leaf of said first plurality of collimating leaves is determined to intersect the first group of laser beams with one side close to the second plurality of collimating leaves based on the detection;

said memory further configured to store second information of positions of each leaf of said second plurality of collimating leaves where said each leaf of said second plurality of collimating leaves is determined to intersect the second group of laser beams with one side close to the first plurality of collimating leaves based on the detection; and

a controller configured to position said each leaf of said first plurality of collimating leaves based on the first information and said each leaf of said second plurality of collimating leaves based on the second information.

Claim 14 (Currently Amended): A radiotherapy apparatus for radiating an X-ray and concentrating the X-ray towards a predetermined part of an object, the apparatus comprising:

an X-ray radiator configured to radiate the X-ray; and

a collimator configured to control a radiation field of the X-ray radiated by the X-ray radiator, including:

a first plurality of collimating leaves;

a second plurality of collimating leaves opposing the first plurality of collimating leaves;

a laser beam generator configured to generate a laser beam which emanates between the first and second plurality of collimating leaves, the laser beam having an axis perpendicular to an axis of the radiated X-ray between the first and second plurality of collimating leaves;

a detector configured to detect the laser beam;

a memory configured to store position information of each leaf of the first and second plurality of collimating leaves when said each leaf is determined to intersect the laser beam based on the detection; and

a controller configured to position said each leaf based on the position information.

Claim 15 (Original): The apparatus according to claim 14, further comprising:

a display configured to display information of the collimator.

Claim 16 (Currently Amended): The apparatus according to claim 14, wherein the laser beam generator is rendered operative when said apparatus is powered.

Claim 17 (Currently Amended): The apparatus according to claim 14, wherein the laser beam generator is rendered operative at predetermined intervals.

Claim 18 (Currently Amended): The apparatus according to claim 14, further comprising an input unit configured to input an instruction, wherein the laser beam generator is rendered operative in response to the instruction.

Claim 19 (Currently Amended): A method of positioning collimating leaves for use in a collimator which controls a radiation field of an X-ray radiated from an X-ray radiator, wherein

the collimating leaves include a first and second plurality of collimating leaves, said plurality of second collimating leaves opposing the first plurality of collimating leaves, the method comprising:

generating a laser beam which emanates between the first and second plurality of collimating leaves, the laser beam having an axis perpendicular to an axis of the radiated X-ray between the first and second plurality of collimating leaves;

detecting the laser beam;

storing position information of each leaf of the first and second plurality of collimating leaves when said each leaf is determined to intersect the laser beam based on the detection; and

positioning said each leaf based on the position information to control the radiation field.

Claim 20 (Currently Amended): A method of positioning collimating leaves for use in a collimator which controls a radiation field of an X-ray radiated from an X-ray radiator, wherein

the collimating leaves include a first and second plurality of collimating leaves, the plurality of second collimating leaves opposing the first plurality of collimating leaves, the method comprising:

generating at least first and second laser beams, wherein the first laser beam extends along a first axis to intersect ~~intersects~~ the first plurality of collimating leaves and the second laser beam extends along a second axis to intersect ~~intersects~~ the second plurality of

collimating leaves, wherein the first and second axis are perpendicular to an axis of the radiated X-ray;

detecting the first and second laser beams;

storing first position information of each leaf of said first plurality of collimating leaves when said each leaf of said first plurality of collimating leaves is determined to intersect the first laser beam based on the detection and storing second position information when each leaf of said second plurality of collimating leaves is determined to intersect the second laser beam based on the detection; and

positioning said each leaf of said first plurality of collimating leaves based on the first position information and said each leaf of said second plurality of collimating leaves based on the second position information to control the radiation field.

Claim 21 (Canceled).